

WHAT IS CLAIMED IS:

1. A method for transferring messages in a digital network, wherein
2 the digital network includes a message source coupled to a message destination by
3 two or more message paths, the method comprising:
4 sending a message from the message source to the message
5 destination;
6 receiving the message at a route point, wherein the route point
7 is a point in the digital network between the message source and the message
8 destination;
9 sending the original message from the route point to the message
10 destination along a first communication path; and
11 sending a copy of the message from the route point to the message
12 destination along a second communication path, wherein the second communication
13 path is at least partially different from the first communication path.

1. The method of claim 1, further comprising:
2 determining when either of the message or message copy is received
3 by the message destination; and
4 in response to the step of determining, preventing the non-received
5 message from being received by the destination.

3. The method of claim 2, wherein the step of determining includes
2 a substep of:
3 maintaining a record of messages that have been transferred to the
4 message destination.

4. The method of claim 1, wherein a copy of the message is stored
2 in an archive.

5. The method of claim 1, wherein the amount of data sent to a
2 message destination is tracked by recording information at the route point.

6. The method of claim 1, wherein an XML envelope is applied to
2 the message.

1 7. In a distributed networked computer system, a process for
2 exchanging messages in said networked computer system, said process comprising
3 the steps of:

4 providing information to be sent from a source to a destination, said
5 source and said destination coupled to said distributed networked computer
6 system;

7 generating a message at said source, said message comprising the
8 information and routing information;

9 transmitting said message to a selected route point in said distributed
10 computer network using a first communication backbone;

11 transmitting said message to at least one additional selected route
12 point in said distributed computer network using a second communication
13 backbone;

14 archiving said message at each route point;

15 transmitting said message from route point to said destination; and

16 eliminating duplicate copies of said message at said destination.

1 8. The process as claimed in claim 7 further including the step of
2 providing an application program interface (API) at said source to enable business to
3 business application programs to obtain information contained in said message.

1 9. The process as claimed in claim 8 further including the step of
2 providing an application program interface (API) at said destination to enable
3 business to business application programs acquire the information contained in said
4 message.

1 10. The process as claimed in claim 7 further including the steps of:
2 providing routing information to said source; and
3 associating an archive to said source.

1 11. The process as claimed in claim 10 wherein said step of
2 providing routing information further includes the step of associating said source with
3 selected route points, said associating step further including the step of updating
4 said association in response to alerts issued by at least one of said route points.

1 12. The process as claimed in claim 11 wherein said step of

2 providing routing information further includes a step of providing a network controller
3 coupled to said distributed computer network for configuring said distributed
4 computer network in response to said alert.

1 13. The process as claimed in claim 11 wherein said updating step

2 further includes the step of providing real-time performance monitoring and
3 management of the hardware components comprising said distributed computer
4 network.

1 14. The process as claimed in claim 13 wherein said monitoring and

2 management step further includes the step of responding to said alert.

1 15. The process as claimed in claim 14 further including a step of

2 updating a database showing the operational status of each component in said
3 distributed computer network in response to said alert, said database accessible by
4 said network controller.

1 16. The process as claimed in claim 7 further including a step of

2 generating an alert in response to detection of a failure to complete the transmission
3 of said message from said source to said destination.

1 17. The process as claimed in claim 16 further including a step of

2 updating a database in response to said failure detection and configuring said
3 distributed computer network in response to changes to said database, said
4 database accessible to said network controller.

1 18. The process as claimed in claim 17 wherein said updating and

2 configuring step further includes a step of associating said source with selected route
3 points, said associating step further including the step of updating said association in
4 response to said failure detection .

1 19. In a networked computer system having a plurality of connectors

2 for providing access to a network for transmitting messages between said
3 connectors, an apparatus for managing the transmission of said messages in said
4 networked computer system, said apparatus comprising:

means for generating messages, said generating means coupled to said network;

a first route point;

a second route point;

means for transmitting said message to said first selected route point in said distributed computer network using a first communication backbone and to said second selected route point in said distributed computer network using a second communication backbone;

means for archiving said message at each route point, said archival means associated with said route point;

means for transmitting said message from said first route point to said destination using said first communication backbone;

means for transmitting said message from said at least one additional route point to said destination using said second communication backbone;

means for eliminating duplicate copies of said message at said destination; and

means for recovering said information at said destination.

20. The apparatus as claimed in claim 19 wherein said means for generating messages further comprises a program interface to business to business application programs.

21. The apparatus as claimed in claim 20 wherein said means for generating messages further includes means for establishing communication between said means for generating messages and said route points.

22. The apparatus as claimed in claim 20 wherein said means for generating messages further comprises means for creating an envelope, said envelope comprising routing information and an opaque payload.

23. The apparatus as claimed in claim 20 wherein said means for generating messages further comprises means for encrypting said message.

24. The apparatus as claimed in claim 19 wherein said archival means further includes a distributed database means for archiving said message at each route point, said archival means coupled to said network.

1 25. The apparatus as claimed in claim 19 further including means
2 for generating an alert, said alert generating means associated with said route point.

1 26. The apparatus as claimed in claim 25 further including means
2 for responding to said alert; said alert responding means coupled to said network.

1 27. The apparatus as claimed in claim 26 wherein said alert
2 responding means further including means for activating a response to said alert;
3 said activating means coupled to said alert responding means.

1 28. The apparatus as claimed in claim 25 further including means
2 for re-configuring said distributed computer network, said reconfiguring means
3 comprising means for transmitting configuration information to said connector such
4 that said message is transmitted to at least one route point in said distributed
5 computer network other than said first or second route point.

1 29. The apparatus as claimed in claim 25 further including means
2 for recovering said message from said archive.

1 30. The apparatus as claimed in claim 29 further including means
2 for tracking receipt of messages at said destination.

1 31. The apparatus as claimed in claim 30 further including means
2 for accessing said archives to acquire said message and to determine delivery
3 information.

1 32. An apparatus for transmitting and tracking messages over a
2 distributed network, comprising:
3 a plurality of route points;
4 a plurality of connectors, each of which coupled by said network to at
5 least a pair of said route points; said connectors adapted to receive information
6 and configuring said information in an envelope prior to transmitting said
7 envelope to said route points;
8 a distributed database for archiving said envelope at each route point,
9 said distributed database coupled to said route points by said network;

10 a second plurality of connectors, each of which coupled by said
11 network to at least two of said plurality of route points, said second plurality of
12 connectors adapted to acquire said envelope from said at least two of said
13 plurality of route points and for determining whether one of said envelope is a
14 duplicate of an earlier received envelope;
15 means for acquiring said envelope from either said route point or from
16 said distributed database.

1 33. The apparatus as claimed in claim 32 further including a network
2 controller coupled to said network.

1 34. The apparatus as claimed in claim 33 further including a network
2 operations center for real-time performance monitoring of said network, said network
3 operations adapted to respond to an alert and for updating said network manager of
4 the operational status of each component in said distributed computer network in
5 response to said alert.